```
1:
     17. 12 bir Nadide
 \mathbb{C}_{\mathbb{R}}
 ਹੱ;
       IT M I Commend Formac:
 4:
 A COMMANE (command tail) (Er)
 6:
       A CF /M I command line is composed of a command, an optional
 7:
      command tail, and a carriage return. The command is the case or
 Ġ.
      filename of a program to be awacuted. The optional command tail
 \hookrightarrow
10:
      cen consist of a brive specification, one or more file
11:
     specifications, and some options or parameters.
12:
17:
      J7/2conventions
. -- :
                    COMMAND CONVENTIONS
15:
14:
      The following special symbols define command synta..
17:
18:
      ()
           surrounds an optional item.
19:
            saparates elternative items in a command line.
20:
      Mor) indicates a carriage return.
Zi:
            indicates the Control Rev.
Z.C.:
            substitute a number for n.
     \alpha
4
      ==
           substitute a string (group) of characters for s.
24:
           substitute an option or option list for a.
     4.5
22:
      13 type square brackets to enclose an option list.
24:
      4,
           type parens to enclose a range of options within an option list.
E W
          Read-Write attribute - opposite of RO
28:
     F ()
           Read-Only attribute - apposite of AW
20:
     BYD System attribute - opposite of DIR
      DIR Directory attribute - opposite of EYS
50 :
72:
      ... preceding element can be repeated as many times as desired.
32:
           wildcard: replaces all or part of a filename and/or filetype.
- <del>- -</del> |
           willocard: replaces any single character
34:
            in the same position of a filaname and/or filatype.
35:
36:
J7:
      17/1chtrichars
38:
J5:
      Control Etaractar
                                               Function
40:
      OTRUHA -
41:
                moves cursor one character to the left. Banked system
477
                 only.
45:
44:
      2771-8
                 moves cursor from beginning to end of command line and
45:
                back without affecting command. Banked eystem only.
461
4 -
      CTFLL-C
                stops executing program when entered at the system
.1∃±
                prompt or efter STRL-S.
49.
50:
      TTKL-E
                forces a physical carriage return without sending
1:
                command to SF/M 3.
52:
= -
      ITAL-F
                moves cursor one character to the right. Banked eyetem
54:
                only.
55:
56:
      *** = <u>_</u> _ <u>_</u> _ <u>_</u> _ <u>_</u> _
                deletes character at current cursor position if in the
77:
                middle of a line. Banked system paly.
53·
58:
      OTBL-I same as the TAB key.
```

```
61:
                  welete consceledant of the left of consin.
    2:
                  07:
                                         wover curson to the laft of the command line end yents
                                          powership to OF M Quillower feets, the make effects as
     4:
    601
                                          darriage return.
    ±6:
                  67:
                                          deletes therester at conson and all spansations to the
    €O:
                                          right.
    69:
                  The same of the sa
    70:
                                         same we corriage - ature.
    <sup>-</sup>1:
    72:
                  ETELLAR
                                        echoes console output to the list device.
   ~~:
    74:
                  restarts sorean scrolling after a CTRL-8.
   75:
                  STELLE
   76:
                                         metypes the characters to the left of the burson on
    --:
                                         new line; widetes the commend line buffer.
   78:
   79:
                 CTFL-5
                                         stops screen scrolling.
   30:
   81:
                 CTRL-L
                                         updates the command line buffer to contain
                                                                                                                                                                  tha #
   22:
                                         characters to the left of the cursor; deletes current
   87;
                                         line.
   84:
   80:
                  DIFLOW
                                         recalls previous command line if current line is ampty;
                                         otherwise moves cursor to end of line. CTRL-2,-M,-R,-U
   25:
   8.74
                                         and RETURN update the command line buffer for recall
   33:
                                         with CTRu-w. Bankes system only.
   89:
   90:
                 CTFL-X
                                         deletes all characters to the laft of the chireon.
   91:
   92:
                  // 'LODFYSYS
   93:
   94:
                 Syntax:
   95:
                             COPYSYS
   96:
   77:
   58:
                 Emplanation:
   77:
                 COFYBYS copies the CF/M C system from a CF/M C system diskette to
100:
                 another diskette. The new disketts must have the same formet as
 1 1:
102:
                the original system diskette.
103:
104:
                E ample:
105:
104:
                             ADCOFYBYS
107:
108:
                D/7/11DATE
109:
110:
                Byntaxi
111:
117:
                             DATE (CENTINUOUS)
                             DATE (time-specification)
117:
                            DATE BET
114:
115:
115:
                Explanation:
117:
               The DATE command late you display and set the date and time of
118:
119:
               day.
120
```

```
121:
       . TE amples
 .12:
 127:
       ALDATE
 1.14:
125:
            Displays the current date and time.
125:
127:
      A>DATE C
 128:
127:
            Displays the date and time continuously.
130:
      A>DATE 08/14/82 10:30:0
131:
132:
133:
            Sats the data and time.
134:
135:
       A>DATE SET
136:
137:
            Fromots for date and time entries.
138:
137:
       7771DEVICE
140:
141:
       Syntaxi
142:
143:
               DEVICE ( NAMES : VALUES : physical-de. . logical-dev)
144:
               DEVICE logical-dev=physical-dev (option)
145:
                                            f,physical-dev (aption),...;
146:
               DEVICE logical-dev = NULL
147:
               DEVICE physical-dev (option)
               DEVICE CONSOLE E PAGE | COLUMNS = columns | LINES = lines1
148:
149:
150:
      Explanation:
151:
151:
       DEVICE displays current logical device assignments and physical
15...
       device names. DEVICE besigns logical devices to peripheral
       delices attached to the computer. DEVICE also
154:
                                                             sats the
     communications protocol and speed of a penipheral device, and
1 cm cm a
156: displays or sets the current console screen size.
157:
158:
       ///IDetions
159:
                   E XON | NOXON | baud-rate 2
160:
161:
                   refers to the XCN/XOFF communications protocol.
162:
      MCX
163:
164:
      MOXDM
                   indicates no protocol and the computer sends data to
165:
                   the device whether or not the device is ready to
166:
                  recaive it.
167
1684
     baud-rate is the speed of the
                                               device. The
                                                                 選りまた会体
149:
                  accepts the following baud rates:
170:
171:
                          55 C
                                   75
                                             110
                                                         134
1721
                          150
                                   300
                                             500
                                                         1200
177:
                          1800
                                  2400
                                             3600
                                                         4800
174:
                          7200
                                  96QQ
                                             19200
175:
174:
     // ZEwamples
177:
178:
      APPEVIOR
179:
```

Displays the physical devices and corrent assignments of

```
1 1
            the logical devices in the aystem.
 15.71
 187:
     ANDEVICE NAMES
 154:
18E:
            Lists the physical devices with a summary of the device
186:
            characteristics.
187:
188: A DEVICE VALUES
139:
15:
            Displays the turnent logical device assignments.
191:
190:
     AVDEVICE CRT
127:
194:
            Displays the attributes of the physical device CRT.
175:
196:
      A,DEVICE CON
197:
19E:
            Displays the assignment of the logical device DON:
177:
ZCC:
      ANDEVICE CONGUT: =1.87, IRT
201:
207.
            Assigns the eystem console output (CONCUT:) to the
200:
            printer (LFT) and the screen (CRT).
204:
200:
     A DEVICE AUXIN: -CRT2 CXCM, 76003
206:
2071
            Assigns the auxiliar, logical input device (AUXIN: 12
            the physical device OFT Leing protocol KDW/XDFF and
Dog:
209:
            sets the transmission rate for the device at 9601.
210:
211:
      ACCEPTOR LET, MICH.
212:
217.
            Disconnects the list output logical delice (LBT:).
214:
      ALDEVICE LFT EXDN, 94903
2:5:
1.6:
            Bets the KOMYKOFF protocol for the physical device LFT
217:
1:8:
            and sets the transmission epsed at 9500.
219:
220: ALDEVICE CONSOLE SPAGE:
-----
2 -- 1
            Displays the durrent consdie page width in columns and
227:
            length in lines.
254:
225:
      ADDEVICE CONSOLE COOLUMNS=40 LINES=1-1
226:
227:
            Sets the screen size to 40 columns and 16 lines.
210:
       / '121K
I3O:
       The DIF command displays the dames of
22.14
                                                       files and the
سم سبب نصر
الله الله الله الله
      characteristics essociated with the files.
ا میشام در وین
او ایما زیره شاد
234:
      The DIR important has intee distinct references:
775:
206:
               DIS
TIRS
273:
               DIS with Cottons
277:
240: DIR and DIRS are outlit-in utilities. DIR with Options is a
```

```
2414
       Transperent utility and rest to loaded into memory from the disk.
141
247:
         "IBUILteim
14:
2431
       Syntaxi
_4o:
247:
               DIR (D:)
243:
               DIR
                   (filemoec)
249:
250:
               City SRII
251:
               DIRS (Hilespec)
ZEZ:
757.
       Explanation:
154:
255:
       The DIR and DIRS Built-in commands display the mames of files
TEE:
       cataloged in the directory of an on-line disk. DIF lists the
2074
       hames of files in the current user humber that have the Directory
TEB:
       (DIR) sttribute. DIR eccepts the # and T wildcards in the file
229:
       scecification.
2611
      .''/TE, amples
I 5 2:
262:
      A:DIF
154:
265:
            Displays all files in waer O on drive A that have the
266:
            Darectory attribute.
267:
268;
      ADIE B:
259:
270:
            Displays all DIR files in user O on drive B.
271:
272:
277:
       DAVEIR C:ZIPPY.DAT
274:
275:
            Displays the name ZIFPY.DAT if the file is in user I
                                                                    276:
            drive C.
277:
278:
      4AIDIF *. PAS
279:
280:
            Displays all DIR files with filetype BAS in user 4 on crive
281:
282:
287:
      おさいひまち スォ・ロウカ
284:
285:
            Displays all DIA files in User T on drive B whose filename
Z64:
            begins with the letter X, and whose three character filetype
287:
            contains the first character C and last character D.
283:
289:
      ADDIES
190:
2911
           Displays all files for user 0 on drive A that have
system (SYS! attribute.
202
254: APDIES *.JOM
295:
295:
           Displays all SYS files with filatype COM on drive A in user
           G. A command (.COM) file in user O with the system
297:
298:
           attribute can be accessed from any user number on that
199
           drive, and from any drive in the search chain (see BETDEF).
300:
```

```
301:
       .. OwlepCatten:
7.2:
COL
      Syntax:
304:
305:
                DIR (d:0 [socions]
J.Ja:
                DIR (filespec) (filespec) ... (options)
307:
309:
      Explanation:
709:
310:
       The DIR command with options is an embanced varsion of the DIR
Dile
       built-in command and displays your files in a variety of ways.
       DIR can search for files on any or all drives, for any or all
312:
user numbers. One or two letters is sufficient to identif, an
314:
      option. You need not type the right hand square bracket.
315:
316:
       ///3Options
717:
319:
       Option
                                    Function
J19:
JIII.
       ATT
                   displays the file attributes.
7.11:
322:
       DATE
                   displays data and time stamps of files.
American and the second se
314:
       DIS
                   displays only files that have the DIR attribute.
725:
ID4:
      DRIVE=ALL displays files on all on-line drives.
727:
TCB:
       DFIVE=(A, B, C, ..., F)
329:
                   discleys files on the drives specified.
330:
371:
       DFIVE=d
                   displays files on the drive specified by d.
332:
3334
       EXCLUDE
                 displays files that DC
                                                MOT MATCH the files
754:
                   specified in the command line.
STT:
3356
       7 F
                   sends an initial form feed to the printer device is
the printer has been activated by QTRL-P.
JJ8:
                   shows the name, size, number of 128-byte records, and attributes of the files. If there is a directory
ಪ್ಪ≂:
       FULL
340 k
                   lacel on the drive, DIS shows the password
341:
T4I:
                   protection mode and the time stamps. If there is no
347
                   directory lacel. DIS displays two file entries on a
144
                   line, omitting the password and time stamp columns.
345:
                   The display is alphabetically sorted. (See SET for a
345:
                   description of file attributes, directory labels,
347:
                   passwords and protection modes.)
-48
349:
       LENGTHER
                   displays a lines of printer output before lineering
J50:
                   a table heading. In is a number between 5 and 45574.
351:
-----
       MESSAGE
                   displays the names of drives and user numbers DIF is
353.
                   searching.
3E4:
7 50 50
       NOSOFT
                   displays files in the order it finds them on the disk.
T56:
To the second
       EC
                  displays only the files that have the Read-Orl,
758
                   attribute.
359:
360:
       FIW
                  displays only the files that are set to Fead-White.
```

```
Jul:
 362:
        £17E
                   displays the filename and size in Filosoles 1124
 .....
                   bytes).
 364:
Tat:
        8Y9
                   displays only the Files that have the SYB attribute.
Joot
        USERHALL
36":
                  displays all files in all user numbers for the default
7:8:
                   or specified drive.
369:
 371:
       USEE=h
                   displays the files in the user number specified by in.
 371:
       USER=(0,1,...,15)
372:
371:
                   displays Files under the user numbers specified.
274:
 7751
        ":TExamoles
 ____6:
377:
       AVDIE C: DEULLI
T78:
379:
            Displays full set of characteristics for all files in weth !
TAC:
            en drive C.
381:
38D:
      A DIF C: CDATES
でもです。
354:
            Lists the files on orive C and their detec.
395:
      AVDIA D: CRW. EYSI
386:
387:
388:
            Displays all files in Lear C on orive D with Read-Write
工程写:
            and System attributes.
াজিক †়ি
3,001:
       CANDIR CUSERHALL, DRIVEHALLS
T72:
397:
            Displays all the files in all user numbers (C-15) in all on-
T 4 :
            line drives.
395:
396:
      Berdis Cercludel *.DAT
77:
398:
            Lists all the files on drive B in user o that do not have a
TOP:
            filetype of .DAT.
400:
      BENDIR CHIZED & FLI & COM & AGM
401:
402:
400:
            Displays all the files of type FLI. COM, and ASM in leer
404:
            I am drive E in size display format.
465:
406:
       A DIR Edriversil Weersall! TESTFILE.BOR
407:
            DIA displays the filename TESTFILE.BCB if it is found or
402
409:
            any drive in any user number.
410
411:
      ALDIA CELERACWI D:
412:
            DIR lists each Read-write file that resides on Driva D.
4:7:
4:4:
            with lits size in wilchytes. Note that D: is equivalent to
41E:
            D: * *
416:
417
       アルアエラは特色
418:
417
      Syntax:
420:
```

```
421:
           DUMF Filespec
422:
427:
      Euglanation:
4.4:
425:
      Dump displays the contents of a file in hemadecimal and ASCII
4....
       format.
4....
412:
      E. ample:
477:
476:
           APPUME ABO, TEX
431:
4.72:
      ///ied
400:
4 .4:
       Format:
4355:
4053
            ED imput--:lespec [d:loutput-f:lespec]
437:
473:
       Explanation:
119:
       Therefore file editor. To redirect to remains the new vention of
440:
441:
      the file specify the destination drive or destination filespec.
441:
       1/2sommands
447;
-- 44:
445:
                               El Command Summary
4-46:
447:
448:
      Commend
                             Action
+49:
450:
       n4
451:
             append of lines from original file to memory Euffer
452:
457:
       ÷
454:
             append file until burfer is one half full
455:
456:
       #4
457:
             append file until buffer is full (or end of file)
458:
457:
       B, -8
4601
             move CF to the beginning (5) or bottom (-2) of buffer
401:
461:
       ನಲ್, ∸ದ⊑
             move OP is characters forward (O) on back (+O) through buffer
463:
454:
463:
       55, -∩D
466:
             delete n characters before (-D) or from (D) the Co
467:
468:
469:
             save new file and return to CF/M-E&
470:
471:
       ≝string(°Z)
477:
            find character string
477:
474 8
475:
             save new file, result, use new file as original file
476:
4771
       1 2/19
473:
             entar insert mode
479:
480: Istring( Z)
```

```
- 11:
              andert strang at DP
450:
487:
       Jeannon_str Zine_str Cael_to_str
454:
              July tappase Ethings
48%:
45 5:
        75 · 756.
477 :
              delete (will) o lines from the CF
4.5:
        Maria Trans. (L
459:
              move CP ¬ lines
4 : 7 :
4-1:
497:
      nMccmmande
457:
              execute commands n times
454:
4951
       n_{i} -n
              move CF o lines and display that line
450:
497:
49S:
       77.2
497:
              move to line n
700:
501:
       #filanmend
医心压症
              execute command through line n
205:
50.41
      - Matring (12)
enterded fina string
50-51
507:
508:
              return to original file
209:
510:
       re, -ar
5:1:
              move OF II lines forward and displa III lines at console
512:
Ell:
514:
              abandon new file, caturn to CF/M-86
医生霉素
       F.C Z3
E14:
517:
              read X$$$$$$. LIB file into buffer
E13:
E19:
       | Ffilespac(イズス
SIC:
              read filespec into Euffer
511:
522:
       Saelate string Zinsert string
---
              substitute string
E24:
EZZ:
       at, mat, or
126:
             type n lines
527:
5251
       '-, −U
529:
             upper-case translation
570:
             line numbering ph/off
5322
       ΟV
537:
             display free cuffer space
TT4:
       nW
5351
             write r lines to new file
ЭW
= ----
             write until buffer is half empty
DJE:
       n X
CT9:
             write or append o lines to Xasassas.LIP
```

74):

```
54::
       n (filedoecl)ID
E 1 ... $
              white h lines to filespect
E4I:
               appard of previous . command applied to wame file
14:
540:
        546:
              dalata File X########.LIB
T47:
546.
        Cafilespaci Zi
F2 22 77 2
              delete filesced
55 E
        7 7
551:
              wait c seconds
Note: \mathbb{C}^n points to the Gurrent character being referenced in
551:
4.3
               the edit buffer. Lee C'IZ to separate multiple commands
Er sui for
               or the same line.
##5:
ewy.
         /IE.amples
559:
525:
             AUED TEET. DAT
             ALED TEST.DAT B:
ALED TEST.DAT TESTS.DAT
ADED TEST.DAT E:TESTS.DAT
Si collit
501:
____
Set I :
564:
       . 1arasa
- . -
5ca:
       - Byntaki
Ξ⊝Ζ∶
568:
             EFARE (filespec) (ECCNFIFM))
559:
570:
      E planation:
71:
STI:
        The ERASE command removes one
                                              or ours files from the
-----
        directory of a bisk. Wildcard characters are accepted in the filespec. Directory and data space are automatically raclaimed
574:
5 7 m E
       for later use by another file. The ERASS command can be
575:
      acbreviated is SRA.
577:
578:
      / ZGption
579:
                       informs the system to
트립스 i
           I DONF IRMO
                                                             prompt
                                                                        for
T81:
                       verification before erasing each file that matches the filespec. CONFIRM can be
561:
spire inted to C.
S84:
585:
       / 'IE. amples
5점5:
587:
       AVERAGE X.FAG
588:
520:
             Famoves the file K.FAS from the disk in drive A.
5₽0:
571:
      A EFA * FFN
2921
       Darfiem (> 10) ?Y
573:
594:
             All files with the filetype PRN are removed from the disk
F9E:
             in drive A.
575:
E97: BUERA G: MYK. K COCNFIRMS
573:
Each file in drive A with a filename that begins with MY lie
- 7.7
             displayed with a question mank for confirmation. Type 7 to
```

```
6014
            ename the file displayed. N to keep the file.
 402:
 6.7:
       AREA DIX. X
 4:
       Confirm (Y.Ma) 7Y
 605:
 ±C ± :
            All files on drive & are removed from the dia .
 6.37:
 60E:
       7771filespec
 실고등
 511:
                                FILESPED FORMAT
±11:
       CEYM 3 (dentifies every file by its unique file specification,
 612:
41<u>7</u>1
       which can consist of four parts: the drive apecufication, the
614:
       filename, the filetype and the password. The tenn 'filespan'
. .
       indicates any valid combination of the four parts of a file
       specification, all separated by their appropriate delimiters.
 015:
 A colon must follow a drive letter. A period must precede a
 盖加田田
       filatype. A samirolon must precede a pasaword.
519:
       The symbols and rules for the parts of
620:
                                                                   file
 specification follow:
6221
600:
       drivesped optional
                                         single alpha character (A-F)
± 1. ** $
      filename
                   filename
                                         1-8 letters and or numbers
⊕⊒Ξ:
      t. 75
                  filetype sational
                                         CHI lattara and/or numbers
5251
                                         O-8 letters and/or rumbers
      는 SEE SWIFT I
                   password optional
£17:
628:
      Valid combinations of the elements of a CR M T file specification
五二节:
      are:
630:
oli:
                     filename
áll:
                     o:filemame
60004
                     filename.typ
= 14:
                     d:filename.typ
67E:
                     filerame;password
± " in a
                     ditilenshe:password
677:
                     filename.typ;password
ilă:
                     d:filename.typ;password
台77年:
      If you do not include a drive appulfier. DRYM D automaticall,
641:
£41:
      uses the default drive.
642:
      Some CF/M I commande accept wilcoand (* and ?) characters so the
647:
      filename and/or filetype perts of the command tail. A wildoerd
544:
645:
      in the command line can in one command reference mark mattering
జా-చేస్త
      files on the default or specified Geer number and drive. 'See
647:
       lonmanda..
:Efc
647:
        13.16ENCCM
=50:
651:
       Syntal:
4E2:
c57:
              GENCOM (COM-filespec) (85%-filespec) ...
-54
                          10LOADER ! NULL | SCB=:cffset.value: 1)
625:
656:
      - £/planation:
£57:
      The DENCOM commend commented a special DCM file with attached TSX
65 B:
      riles. The GENCOM command can also restore a previously
4.75
      GEVOIMed file to the original COM file without the header and
560:
```

```
665:
       2002Cptibms
~ >4:
665:
       LOAJER
                  sets a flag to keep the program loader active.
ထက်ထံ 🗈
      NULL
667:
                   indicates that only ASX files are specified. SENCOM
659:
                   creates a dummy COM file for the RGX files. The
                   output COM fileneme is taken from the filename of the
669:
57x:
                   first RSX-filessec.
671:
     SCB=(offset,value)
671:
671:
                   sets the System Control Block from the program by
± - 4:
                   using the her values specified by (offset, value).
675:
675:
      -//IEE.ambles
o<sup>−</sup>7:
675:
      A)GENCOM MYFROG PACGI FACGI
579:
            Generates a new COM file MYFFOG.COM with attached FEX's
630:
i Bi:
            PROG: and PROS2.
682:
687:
      ALGENCOM PROGI PROGI CHULLI
o34:
685:
            Creates a ICM file FRCG1.COM with PSX's FROG1 and FROG2.
586:
687: ALGENCOM MYPROS
58B:
689:
            GENCOM takes MYFFOG.COM, strips off the header and
490 k
            deletes all ettached REX's to restore it to its driginal DCM
691:
            format.
672:
497: ADBENCOM MYFROG PROB1 FFOG1
:4∓
695:
            GENCOM looks at the already-GENCOMed file MYFROG.COM to gas
6751
            if PROSt.RSX and PROST.RSX are already attached RSX files in
            the module. If either one is already attached. GENCOM
697:
±កា⊒∎
            replaces it with the new RBX module.
                                                      Otherwise, SENCOM
699:
            appends the specified RSX files to the COM file.
700:
701: //1GET
702:
703:
       Syntax:
4:
70E:
       GET (CONSOLE INPUT FROM) FILE Filespec(ICECHO:NO ECHO) ; SYSTEM3)
704:
       SET CONSCLE INPUT FROMS CONSOLE
707:
708:
       Explanation:
76-7:
      GET directs the system to take console input from a file for the
710:
77375
      ne t system command or user program entered at the console.
711:
71T: Console input is taken from a file until
                                                         the
                                                                program
7:4: terminates. If the file is exhausted before program input is 7:5: terminated, the program looks for subsequent input from the
715a
      console. If the program terminates before expansions all its
      input, the system reverts back to the console for console input.
717:
71B:
     With the SYSTEM option, the system immediately goes to the
7194
     specified file for console input. The system reverts to the
720:
```

SENCOM can also attach beader records to COM files.

ლე_1:

662:

FS\ ≡.

consols for input when it reaches the end of file. Re-direct 721: the system to the console for console input with the SET CONSOLE INFLY FROM CONSOLE command as a command line in the include 727: TI4: -ile. 725: 72:: // 'ZEptions 727: 723: SOHO specifies that input is echoed to the console. 75i≡ is the default option. 700: NO ECHO exectfies that file input is not echoed to the 7. console. The program cutput and the system prompts are not affected by this option and are still echoed to 777: 4: the console. 735: 73a: specifies that all system input is immediatel, taken SYSTEM 777: from the dist file specified in the command line. GET 772: takes system and program input from the file until the file is exhausted or until GET reads a GET console 740: command from the file. 71: 742: ///OEwamples 743: 744: AUGET FILE XINPUT "7 45 t ASHYEROG 746: 747: Tells the eystem to activate the SET Lt: lity. Since SYSTEM 742: is not specified, the system reads the next input line from 7491 the console and executes MYPROG. If MYPROG program 750: requires console input, it is taken from the file XINPUT. When MYFROG terminates, the system reverts back to the 7E1: ---: comsols for consols input. 75T: 754: A GET FILE XIND (SYSTEM) -55: 756: Immediately directs the system to get subsequent 757: console input from file XIVO because it includes the SYSTEM 758: option. The system revents back to the console for 755: console input when it reaches the end of file in XINI. Or 760: XIME may redirect the system back to the console if it 751: contains a GET CONSOLE command. 762: 763: AUGET COMMOLE 754: 76E: Tells the eyetem to get console input from the console. 4, 4, 4 This command may be used in a file (previously specified in 767: a GET FILE command), which is already being read by the 758: system for conscie input. It is used to re-direct the 769: consols input back to the consols before the end-of-file 7721 is reached. 771: . THELP 772: ファフェ 774: Eyntax: 775: 776: MELP (topic) (subtopic: ... subtopic8) (INOPAGE:LIST) 77: 778: Euplanation: 779 PELF displays a list of topics and provides summarized 780:

```
7211
        information for CRIM T commands.
781:
7aC:
       HELF topic displays information about that topic.
T II 44 L
       HELF topic subscripts simpleve information about that subtopic.
785:
786:
        One or two letters is enough to identify the topics. After HELP
       pisplays information for your topic, it displays the special prompt HELP or your spream. Followed by a list of
750:
Eublichics.
75
791:
            Enter 7 to display list of main topics.
70.71
           Enter a period and subtopic name to access subtopics.
797:
            Enter a period to redisplay what you just read.
~~4:
           Freeze the RETURN key to return to the CR M I statem prompt.
           INDEAGED option disables the 24 lines per page opposed display.
795:
~~~:
            Fress as, wey to a it a display and return to the HELF prompt.
797;
7984
      E. amples:
~~?÷
8:::
            A HELF
E: : :
            A RELE DATE
2001
            A HELF DIR OPTIONE
- -
             A. HELFY LOFTIONS
844
             HELF BET
5 1 40 E
             HELF BET FRESWORD
800
             HELF . TASENCRI
2
             HELF>.
8.8:
             HELF SER!
± 7° :
81 : :
      -, -laexicr
211:
811:
      3,514 :
_ _ _ =
8.4.
           rexcom filename
3.5:
8:5:
       Esplanations
317:
813:
       The MEXCOM Command Jenerates a command file fileties .COM: frot
       a . HEX input file. It names the putput file with the same
8:5.
       filanane as the incut file but with filetipe .COM. HEXCOM elways
800te
2111
       liphs for a file with filetype .HEX.
8೧೯ ಕ
8211
       E.ancle:
214:
est:
       ALHEMEDA BERRESHAM
Elb:
827:
             Denemetes a command file ARCGRAM.COM from the input he file
ate:
            F'EGGEAM. HEX.
8254
2004
       - ' HIMITDIA
2.1:
851:
       Eyr tall:
333:
274:
           INITDIA (EE)
275:
ets:
       Englanation:
237:
       The ImiTDIR Command initializes a disk directory to allow data
SJ8:
      and time stamping of files on that fiel. INITDIA can also recover
847.1
```

lime data directory apada.

```
€41:
242:
      Example:
245:
844:
           AMINITDIA D:
345:
           INITDIR WILL ACTIVATE TIME-STAMPS FOR SPECIFIED DRIVE.
84c:
347:
           Do you want to re-format the director, or D: (Y/M) ?Y
848:
849:
      - ///illB
250:
8E1:
       Evatex:
352:
253:
              LIB filespec(CI(M'F'D3)
SS4:
               LIB filespec(CI:M:F3)=filespec(mod:fier)
855:
                                      {,filespec(modifier) ... )
256:
857:
      E.planation:
SIS:
859:
      A library is a file that contains a collection of object modules.
      Use the LIB utility to create libraries, and to append, replace,
260:
       select or delete modules from an existing library. Mae LIB to
861:
501:
      obtain information about the contents of library files.
E63:
864:
      LIB creates and maintains library files that pontain object
Sas: modules in Microsoft REL file format. These modules are produced
866: by Digital Research's relocatable macro-assembler program, FMAC.
357:
      or any other language translator that pruduces modules in
868:
      Microsoft REL file format.
369:
870:
       You can use LINK-80 to link the object modules contained in a
871:
      library to other object files. LINK-80 automatically selects
      from the library only those modules needed by the program being
872:
       linked, and then forms an executable file with a filetype of COM.
873:
874:
875:
      ///20ptions
876:
877:
          Ι
                The INDEX option creates an indexed library file
878:
                of type .IRL. LINK-80 searches faster on indexed
879:
                libraries than on non-indexed libraries.
330:
881:
         ri
                The MODULE option displays module names.
882:
BEJ:
         F.
                The FUBLICS option displays module names
84:
                public variables for the new library file.
885:
886:
                The DUMP option displays the contents of object
         \Gamma
957:
                modules in ASCII form.
888:
887:
      ///2Mcdifiers
370:
891:
      Use modifiers in the command line to instruct LIB to
371:
     delete, replace, or select modules in a library file. Angle
      brackets enclose the modules to be deleted or replaced.
893:
894:
      Farentheses enclose the modules to be selected.
895:
875:
                                  LIE Modifiers
997:
89E:
                   Delate
                              399:
900:
```

Replace

```
F01:
901:
                                  If module came and filename are the
₹:":
                                  same this shorthand can be lowd:
904:
905:
                                  <filename)
706:
917:
                      Select (modFIRST-modLAST, mod1, mod2, ..., rodn)
908:
909:
       .../CExamples
⇒io:
9111
       - AMLIB TESTATEL
F12:
717:
             Displays all modules and publics in TEST4. FEL.
714:
715:
      A:LIB TESTETF3=FILE1,FILE2
715:
917:
             Creates TESTS.REL from FILE1.REL and FILE2.REL and displays
#13:
             ell modules and publics in TESTS REL.
917:
720:
       ARLIS TEST="ESTIRMODELMODE", TEST2 C1-C4, C4)
921:
9751
             Oreates a library file TEST. REL from modules in two source
7222
             files. TEST1.FEL contributes MCD1 and MCD4. LIB extracts
924:
             modules 21, 24, and all the modules located detween them.
725:
             as well as module De from TESTI.REL.
920:
927:
      A LIB FILEI=FILEI MODA= /
2.8:
929:
             Oreates FILEO.AEL from FILET.FEL, consting MODA which is
774:
             a module in FILET. REL.
971:
911:
       A LIS FILES=FILES / YCDA=FILEB.REL/
934:
             Orestee FILES.FEL from FILES.REL, FILES.REL replaces 100%.
775:
976:
       ALLIB FILESFFILESTHISMATE
777:
93a:
             Module THISNAME is in FILEE.FEL.
                                                    when LIB creates
7.274
            FILES. REL from FILES. REL the File THISNAME, FEL replaces the
940:
             similarly hamed module THISNAME.
741:
942:
      A. LIE FILE: CID-B: FILEE (FLETS, FIAD, BEARCH-DISPLAY)
943:
944:
             Creates FILEIVISE to crive A from the selected inclules
មានឃុះ:
            FLOTE, FINE, and mediles SEAFOH through the modile
9461
            DISFLA: In FILEZ.FEL on orive 5.
≃.1 →
948:
      1 Lint.
947:
C) ES
      劉 東京 生きなる
~ 1
902:
               LINE I: [Hilesped, [[options]] = [filesped [[options]] ],...]
753:
951
       Englar Atrion:
D_5:
      LITM commines relocatable object modules such as those produced by RMAG and Filippe into a .CCM file ready for
955
25.
      akacution. Relocatacle files can contain external mefemences and
955
Too.
      publics. Relocatable files can reference modules in library files. LINK dearches the library files and includes the
9211
```

```
741:
        referenced
                     condules in the putput file. Bee
                                                              the OF/M
        Programments Utilities Guide For a somplete description of Lithi-
 962:
 947:
 964:
 95E:
        355:
 9471
        use LINK option switches to control (specution parameters. (Link)
 7-2:
        options follow the file specifications and are enclosed
 965
        within squame offices.
                                    Multiple swittnes are separated to
 5770:
        commas.
 971:
 971:
                                    LINK-30 Costons
 473:
 974:
                 9
                            Additional mamors; reduces buffer sosts
 F.T.5:
                            and writes tempinary data to disk
 57 ±:
 977:
                B
                            BIDE link in banked CF/M T system.
 ~ T∃:
                            1. Aligns data segment to page boundary.
 777:
                            Puts length of code sagment in header.
 ಎಡ<:
                            Ξ.
                               Defaults to .SPR filetyce.
 981:
 982:
                Dabaa
                            Data origin; sets memory origin for
 common and data area
 984:
 785a
                            Go; set atant address to label n
                Gn
 735:
 987:
                Lonno
                            Load; charge default load address
 789:
                            of madule to bible.
                                                 Default 0100H
 989;
 990:
                Mhheb
                            Memory size; Defina free memory
 991:
                           requirements for MP/M modules.
 991:
 993:
                NL
                           No listing of symbol table at console
 ⊋94:
 955;
                NF:
                           No symbol table file
 776:
 997:
                00
                            Output . COM dommand file. Default
 978:
 999:
                OF
                           Output . PRL page relocatable file for
1120:
                           execution under MF/M in relocateble
10014
                           segment
1602:
10071
                CE
                           Output .RSP resident system process file
1004:
                           for execution inder MP/M
1005:
1006:
                OS:
                           Cutput . SPP system page relocatable file
1007:
                           for election under MP/M
1008:
1009€
                FINANCE
                           Program origin; changes default
1.10:
                           program origin address to hihh.
1011:
                           Default is 0100H.
1012:
10174
                Q
                           Lists sympols with leading question mark
1014:
1015:
                \Xi
                           Search preceding file as a library
1016:
16171
                $C∃
                           Destination of console messages
101B:
                           d can be X (conscie), Y (printer),
```

or Z (zero putput). Default is X.

1017:

```
1021:
                 ±I∃
                            Scurce of intermediate files:
1012:
                            d is disk crive A-F. Default
1023:
                            is current drive.
1004:
1025:
                            Source of library files;
                撃しば
1025:
                            d is dis- drive A-F. Default
1027:
                            is current drive.
1023:
1029:
                           Destination of of object file;
                $0d
1030:
                            d can be Z or disk drive A-P.
1071:
                            Default is to same orive as
1072:
                            first file in the LINE-80 command.
10TT:
1074:
                $ S₫
                           Destination of symbol file:
1035:
                           d can be for I or bisk drive A-P.
1006:
                           Default is to same drive as
1077:
                           first file in LINE-80 command.
10T8:
1009:
        ///CExamples
1040:
1041:
        WALTEINE PRAYETTEINES
1042:
1047
             LINK-80 on drive A uses as input MYFILE. FEL on drive B and
1044:
             produces the executable machine code file MYFILE.COM on
1045:
             drive R. The ENFI option specifies no symbol table file.
1946:
1047:
      APLINK mi,mi,mi
1048:
1047:
             LINE-50 combines the separately compiled files mi, mC, and
             mT, resolves their external references, and produces the
1050:
1951:
             executable machine code file m1.COM.
1052:
1057: ADLINK m=m1, m2, m3
1054:
1055:
             LINK-80 combines the separately compiled files m1, m2.
1056:
             m3 and produces the executable machine code file m.COM.
1057:
1058: AMLINK MYFILE, FILESCED
1059:
1060:
             The [s] option tells LINK-SC to search FILES as a library.
1061:
             LINK-20 combines MYFILE.REL with the referenced
             subroutines contained in FILES.FEL on the default drive
1062:
1043:
             A and produces MYFILE.COM or drive A.
1064:
1065;
       - ///imac
1056:
1067:
       Syntax:
1068:
           MAC filename (#options)
1065:
1070:
1071:
       Explanation:
1372:
1073: MAC, the CP/M T macro assembler, reads assembly language
1074: statements from a file of type .ABM, assembles the statements,
1079: and produces three output files with the input filename and 1076: filetypes of .HEX, .PRN, and .SYM. Filename.HEX contains INTEL
1077: pewadecimal format coject code. Filename.PFN conteins an
1079: annotated source listing that you can print or examine at the
      console. Filename. SYM contains a sonted list of symbols defined
1077:
1080:
      in the program.
```

```
10811
1087:
        . 50:
1084:
            A: MAC SAMELE
:085:
1055:
           A MAC BAYFLE TPB AA HE BY
::37:
1088:
        // "Imputions
1187:
1070:
         has options to direct the input and output of MAC. Her a letter
1171:
       with the option to indicate the spurce and destination onlives,
1092:
        and decaste, printer, or zero output. Valid drive hares are A
         thru D. X. Frend I specify conscie, printer, and zero output,
_____
1094:
        respectively.
1 3 7 7 8
1095:
            Assembl, Iptions That Direct Input/Output
14 97 :
1053:
                 Sounts drive for .ASM File (A-C)
1 99:
1.1 \gg 1
                 destination drive for .HEX file (A-C, I)
1101:
1102:
                 scurce drive for mearchister, ... IB files delled by the
1117:
                 MACLIE Statement.
1105:
       53
                 destination brive for JERN File (4-0, X, F, Z)
:: 06:
1107:
                 destination drive for . EYM file
1108:
1109:
1110:
1111:
             Assembly Options That Modif, Contents Of Outout Fils
1112:
1117:
              lists input limes read from macrollibrary .LIB files
        ·- --
1114:
              suppresses listing default)
1115;
1115:
        --- M
              lists all macro lines as they are processed during asserd!
11175
        ..... 144
              suppresses all macro lines as they are read during assembly
1115:
        * **
              lists only hell generated by macro e panelone
7.
1120:
       40
              lists all LOCAL symbols in the symbol list
1121:
        -3
             suppresses all LOCAL symbols in the symbol list (default)
1122:
1127:
        + 3
            appends s, modl file to print file
-5 suppresses creation of symbol file
1125:
1125:
        + 1
             produces a page : listing for means depugging in .FFN atte
4 .....
             suppress listing on pass 1 (default)
        -- 1
1128:
1115:
        CLEATCH
1100:
1171.
        Synta.:
11775
11771
            FATOM filemane C. Eyeo Cho
1134:
113E:
        E planation:
1176:
        The PATCH command disclave or installs patch number in the the CR'M I system or command files. The patch number is nest be
11774
1179%
        between 1 and TD inclusive.
1177:
1140:
```

```
1141:
        E. ample:
1142:
        ALFATCH SHOW I
1147:
1144:
1145:
             Fatches the SHOW.COM system file with patch number C.
1145:
1147:
        Z/'IFIF Impoy)
1148:
114-
        Synta, i
1150:
1151:
                    DESTINATION
                                              BOURCE
11ET:
          FIP d: (5n) ' filespec([5n]) = filespec([5]),... : p:{[5]
1154:
115E:
        Elplanation:
1154:
        The file copy program PIP copyes files, combines files, and
1157:
        transfers files between disks, printers, consoles, or other
1159:
        devices attached to your computer. The first filespec is the
1159:
1150:
       destination. The second filespec is the source. Use two or more
1151:
        source filespect separated by commes to combine two or more files
1145
        into one file. [c] is any combination of the evailable options.
1163:
        The [Gn] option in the destination filesped tells FIF to somy
1154:
       your file to that user comber.
114T:
1166:
       FIF with no command tail displays an * prompt and awaits
1147:
        series of commands, entered and processed one line at a time.
1158;
        The source or destination can be any OF/M 3 lagical device.
1167:
       .''.'CExamples
1170:
11-1:
        CORY A FILE FROM DME DISK TO ANOTHER
1172;
1177:
             ANFIF b: =a: draft.tht
             APPIP bidraft.t.t = a:
1174:
117T:
1176:
             BT>FIF myfile.dat=A: [592
1177:
             APPRIR B:: [672=myfile.dat
1175:
1179:
      CORY A FILE AND REMAME IT
1190:
1181:
             AE'FIF nawdraft.t troldraft.t.t
             CODFIP bineworaft.tatea:cldraft.txt
1182:
1197:
1184:
        CORY MULTIPLE FILES
1195:
1136:
             ATRIE bandraft. *
1197:
             ATFIP b: #*. *
1158:
             E'FIF 5: =c:.*.*
1199:
             S'FIF b:= *.t t[g5]
1190:
             CIPIF ALEY. DOMEWED
1191:
             BIPIP a: Egg33=c:*.*
1192:
1197:
       COMBINE MULTIPLE FILES
1174:
1195:
             A) FIF binew.dat=file1.dat, file2.dat
1176:
      COPY, RENAME AND FLACE IN USER 1
1197:
1198:
1155:
            Alpip newdraft. E. t[g1]=oldraft. t(t
:00:
```

```
12015
        CORY, REMAYE AND BET FROM LEEK !
1207)
              ADPIP newdraft.t..t=ald-aft.tyt[a1]
1204:
4 m 1 m 2
        COPY TO FROM LOGICAL DEVICES
12761
1207:
              Alpis bifunfile.sue=con:
              ADFIF latifican:
ITCS:
1 ... :
              ADFIR leti=b:draft.txtSt81
1010:
              APPIR pro:=b:draft.txt
17.11:
1212:
       7/ Toptions
1213:
        PIR CETTONS
1214:
12251
1214:
             Andhiva. Copy col, files that have been changed since the
7 ·- 2 ·- 1
              lest copy.
1212:
             Confirm. PIP prompts for confirmation before each file scape
1217:
        Dr.
             Delete any characters past column n.
1220:
        E
             Echc transfer to console.
1221:
        -
             Filter form-feeds from source data.
1222:
        Ξn
             Set from or go to weer n.
de designation in a
        4-4
             Test for valid Her format.
1224:
        Ţ
             Ignore :00 Hex data records and test for valid He. format.
of the state of the
        6.
            Fill display of filespecs or console.
12251
             Translate upper case to lower case.
d militar may as
        -.1
             Mumber butbut lines
1223:
        يندو
اليو
             Object vile transfer,
                                     I ignirad.
             Det page length to r. (default n=50)
1007:
        P :--
12771
        As' I Guit copying from source at string s.
Read files that have been set to System.
        F.
12771
        8s T Start copying from the source at the string s.
1277:
1274:
        Espand tabs to n Epaces.
        5
             Translate lower case to upper case.
12.00
        V
             Verify that data has been written correctly.
1274:
        A
             Write over Read Coly files without console query.
4 4 4 4 5
             Zerb the parity bit.
1278:
1277:
            options except 0,6,4.0,5,V and W force an
                                                               ASCII fila
1240:
       transfer, theracter by character, terminated by a 12.
1241:
1240:
       こくど オオアロエ
1243:
1744:
        Eyntaxi
:245:
            PUT CONSCLE (CUTPLT TO) FILE filespec (option) | CONSCLE
1296:
            PUT PRINTER COLTPUT TOU FILE filespec Spotions | PRINTER
12471
1248.
            PUT CONSOLE (QUIFUT TO) CONSOLE
1249:
            PUT PRINTER (DUTPUT TO) PRINTER
1250:
1251:
       Explanation:
e militar manigation and the second
       FUT guts console on printer output to a file for the helt
1251:
12541
        Lommand entered at the console, until the program terminates.
        Than console output revents to the console. Printer output
1255
       is directed to a file Until the program terminates.
1257:
        Then printer output is put back to the printer.
1258:
       FUT with the
1257:
                          SYSTEM
                                  option directs all
                                                              conscie/printer output to the specified File. This option
1750:
```

```
1251:
        terminates when you
                                     ′ibe
                                         701 7
                                                COMBOLE
                                                              L-1--
                                                                    SSINTES
                             arter
                                                        m1, 94<sup>m</sup>
1 TAME
       -command.
1027:
        Transfer to the second
1254:
11.5:
12551
                    E (SOHO ) NO ECHOP (FILTER ! NO FILTER) ! (SYSTEM) ?
1067:
1262:
       ECHO
                     specifies that output is echood to the impacle. This
1219:
                     is the default option when you direct consols output
1276:
                     tt a File.
- - - 1 :
10721
        NO ECHO
                    specifies that file butput is not echoed to the
                     console. NO ECHO is the defeult for the PUT PRINTER
1274:
                     command.
------
12751
        FILTER
                    apposition filtering of control characters, which
12771
                     means that control characters are translated to
1272:
                     printable therapters. For elample, an ESCade
. . . . . .
                     dhersater is translated to ME.
1281:
       NO FILTER
                                   200 July 1
                    means that
                                          ರಧಿಕ್ಷಣ ಗಡಕ
                                                       tramalate
                                                                     ====<u>=</u>1
: 2222
                     characters. This is the defe. It option.
1237:
1254:
        SYSTEM
                     specifies that eystem output as well as program
output is written to the file specified by filespec. Dutput is written to the file until a
1286:
                     subsequent PUT DOMESSE command redirects conscie
1257:
1299:
                     mutput back to the conscie.
1239:
129:
       // ZENamples
1271:
1292;
       PARTY CONSCLE DUTFUT TO FILE YOUT SECHO:
1274:
             Dinacts consols cutput to file (COUT) with the dutput schoed
1295:
             to the console.
1253:
1297:
       ADELT ESINTER OUTPUT TO FILE XOUT
1273:
       A: MYEFOG
imes:
1270:
             Directs the printer output of program MYFROG to file
17711
             XOUT. The output is not echoed to the printer.
12021
       ANFUT PRINTER CUTPUT TO FILE XOUTS DECHO, SYSTEMS
10004
1704:
100E:
             Directa all printer output to file XOUTO as well as to the
1705:
             printer (with ECMG option), and the PUT is in effect whill
130.4
             you enter a FUT SPINTER OUTPUT TO PRINTER Command.
:778:
1 7 7 7 2
       ALFUT DEMSELS OUTFUT TO GENSOLS
1710:
10111
             Directs console output back to the consols.
1712:
17174
       ALPUT PRINTER CUTFUT TO PRINTER
1114:
1771五:
             Dinacts printer output back to
                                                 the orinter.
1715:
1317:
       J771 SEMANE
1719:
1319:
       Syntals
1720:
```

```
1321:
             MENAME { new-filespec = bld-filespeci; *
1772:
1777:
        Englanation:
 1724:
1775
        RENAME lets you change the name of a file in the director. of
 disk. To change several filenames in one command use the * or ?
        wildcards in the file epecifications. The RENAME command can be
4 70 70 70
 1775:
        abbrediated REN. REN prompts vol for input.
1779:
1000:
       7// OE-amples
1302: A) FENAME NEWFILE, BAS-CLOFILE, BAS
1374:
             The file CLDFILE.BAS changes to NEWFILE.BAB to drive A.
1775:
1374:
        A PENAME
1337:
1338:
        The eystem prompts for the filespecs:
: ***
1340:
                Enter New Name: (, FFN
1341:
                Enter Old Name: Y. PRN
1342:
                       。 甲巴拉塞米
                                     * PRN
1343:
                A >
1744:
1345:
       File X.PRN is renamed to Y.FRN on drive A.
1346:
1047: BUREN A: FRINTS, NEW = PRINCE, NEW
1048:
1749:
             The file FRINCE. NEW on drive A phanges to FRINTS. NEW on
1350:
             drive A.
1351:
1752: AUGENAME S*, TEX=A*, TEX
. ....
1754:
             The above command renames all the
                                                         files
. ....
             Ak.TEX to files with filerames Sk.TEX.
1356:
      ALREN B: NEWLIST = B: OLDLIST
1357:
:=58:
1359:
             The file OLDLIST changes to NEWLIST on drive B. Since the
1050:
             second drive specifier, B: is implied by the first one, it
1261:
             is unnecessary in this example. The command line above has
1767:
             the same effect as the following:
1363:
1364:
               AVREN B: NEWLIST = OLDLIST
1555:
                           ⊃r.
1366:
                ADREM NEWLIST = B: OLDLIST
1367:
1362:
      77, 19MAC
1759:
1270:
       Syntan:
1271:
1372:
            RMAC filespec ($Rd | $Sd | $Pd)
17731
1374:
       Explanation:
1375:
1376t
      FMAC, a relocatable macro assembler, assembles .ASM files of
17773
       into .REL files that you can link to create .COM files.
1378:
       77/2cptions
1379
1730:
```

```
1381:
        SMAC potions specify the destination of
                                                     th≖
                                                          suiput
1782:
        Replace d with the destination drive letter for the outsit files.
1757:
1384:
                          Option
                                          deputpet option
1395:
1765:
                  F- drive for FEL file (A-0, Z)
                  SH onlys for SYM file (AHC, X, F, Z)
1737:
1388:
                  PH drive for PBN file (A-C, X, P, Z)
1389:
1790:
                  A-C specifies drive A-C.
1171:
                  X means output to the console.
1392:
                  F means sutput to the printer.
1393:
                  I means pert output.
1394:
1395:
       /'/IExample
1776:
       A:FMAC TEST SEX EB PB
1377:
1T98:
             Assembles the file TEST. ASM from drive A, sends the listing
1399:
1400:
             file (TEST. PRN) to the console, puts the symbol file
1401:
             (TEST. SYM) on drive 3 and puts the relocateble poject
1400:
             file (TEST. NEL) on drive B.
140T:
1404:
        J.//teave
1405:
1406:
       - 含yntax:
1407:
1408:
             SÁVE
1409:
1410:
       Explanation:
1411:
1412:
        SAVE copies the contents of memory to a file. To
1417:
        first issue the BAVE command, then run your program which reads a
1414:
        file into memory. Your program exits to the BAVE utility which
        prompts you for a filespec to which it copies the contents of
1415:
141=:
        memory, and the beginning and ending address of the memor, to be
1417:
        SAVEd.
1418:
1419:
       ///TExample
:420:
1421:
             ADSAVE.
1422:
1427:
        Activates the SAVE utility. Now enter the name of
                                                             the program
1424:
        which leads a file into memory.
1477:
1426:
             A>SID dump.com
:427:
1479:
       Next, execute the program.
429:
1477:
             #90
1471:
       When the program exits, SAVE intercepts the return to the system
1432:
      and prompts the user for the filespec and the bounds of memor, to
1477:
1474:
       te SAVEd.
14251
14361
             SAVE Ver I.O.
1477:
             Enter file (type FETUFN to exit):dump2.com
1438:
       If file DUMPE.COM ellists already, the system asks:
14394
440
```

```
14411
              Deleta dump2.com? Y
1442:
1447:
       Then the system asks for the bounds of memory to be seved:
1444:
1445:
              Beginning hex address: 100
1444:
              Ending hex address: 400
14471
1448:
       The contents of memory from 100H (Hevadecimal) to 400H is copied
       to file DUMPZ.COM.
:449:
1450:
14E1:
        7/71EET
1452:
1455:
       Syntax:
1454:
14EE:
                 SET Coptions:
1454:
                 SET d: Coptions)
                 SET filespec [options]
1457:
1458:
1459:
       Explanation:
1450:
14414
        EET initiates password protection and time stamping of
       files. It also sets the file and drive attributes Read-Write, Read-Only, DIR and SYS. It lets you label a dick and password
144....
1463:
1464:
      protect the label. To enable time stamping of files, you
1465;
       must first run INITDIR to format the disk directory.
1456:
1467:
       -///2Labei
1468:
1469:
       Syntax:
1470:
1471:
                 SET (d:) [NAME=labelname.typ]
                 SET [PASSWORD=password]
14721
1477:
                 SET PRASEWERD=(ar)
1474:
14751
       ///SExamples
1476:
1477:
        ADSET ENAME=DISK1001
1479:
1479:
             Labels the disk in the default drive as DISK100.
1430:
14814
        ACCET FRASEWORD-SECRETS
:482:
1480:
             Assigns SECRET to the disk label.
1434:
1485:
        ADBET IPASSWORD-forb
1486:
1487:
             Nullifies the existing password.
1488:
1489
        7772Padewords
1490:
1491:
                SET [PROTECT=GN]
149-1
                SET CARCTECT=OFF]
1457:
                SET filespec [FASSWORD=password]
1434:
                SET filespec EPROTECT=READ1
1495:
                SET filespec CFACTEGT=WRITE3
1455:
                BET filespec CPROTECT=DELETE)
1497:
                SET filespec [PROTECT=NONE]
1498:
                SET filespec [attribute-options]
14 F F a
1560:
       ///3Modes
```

```
1501:
15011
                    Fassword Frotection Modes
1503:
1504:
      Mode
                                    Protection
1505:
150c:
                       The password is required for reading, ddp/ing
        READ
15.7:
                       writing, deleting or repairing the file.
1508:
1509:
        WEITE
                       The cassword is required for writing, deleting
remaining the file. For direct need a passwird to
15111
                       read the file.
1512:
151T:
        DELETE
                       The password is only required for deleting or
1514:
                       recaping the file. You do not need a password to
1515:
                       read or modif, the file.
1516:
1511
        NONE
                       No password extate for the file.
                                                         If a passwort
1512:
                       password a ists, this modified can be used to
15:7:
                       delete the password.
1520:
1521:
        ///CAttributes
1000
       E-D
1535:
                       sets the file attribute to Read-Only.
1E24:
icor:
        \Xi M
                       sata the file attribute to Read-Write.
:E25:
1827:
        87.5
                       mate the file attribute to SYS.
1528:
1555;
        mets the file attribute to DIF.
iffo:
15317
        PROFIVE HOFF
                      means that the file has not been backed up
1 -----
                       (Archived).
18374
1514:
      ARCHIVE=CM
                      means that the file has been backed up (anchived).
1575:
                      The Archive attribute can be turned or b. BET or
15Tc:
                      by FIP when copying a group of files with the SIP
1577:
                      TAI option. SHOW and DIR display the Archive
1578:
                      option.
1539:
157C:
      F1=ON OFF
                      turns or or off the user-definable file attribute
1541:
1541:
1540:
       F2=ONIOFF
                      turns on or off the user-definable file attribute
1544:
                      F2.
1545:
1546:
      FJ=ON!OFF
                      turns in or off the weer-definable file attribute
1547:
1548:
1547:
      F4=CN|OFF
                      turns on or off the user-definable file attribute
1550:
                      F4.
1551:
1551:
      //JEwamples
1555
1EE4:
      SET SPROTECT=SN3
----
1556:
            Turns on password protection for all the files on the disk.
1557:
            You must turn on password protection before you car assign
1558:
            passwords to files.
```

1559: 1560:

SET CPROTECT=OFF3

```
:561:
1562:
             Disables password protection for the files on voum disk.
::543:
15-4:
      ADBET MYFILE.TEX TRASSWORD=MYFIL1
MYFIL is the issaword essigned to file MYFILE. TEX.
lac:
: Ea7:
1568:
       BUSET *.TEX EPASSWORD=SECRET, FROTECT=WAITES
1569:
1570:
             Assigns the password SECRET to all the TEX files on drive E.
             Each TEX file is given a WRITE protect mode to prevent
1571:
1572:
             unauthorized editing.
1573:
1574: ADSET MYFILE. TEX SEC SYST
1575:
1576:
             Sets MYFILE. TEX to Fead-Only and SYStem.
1577:
1579:
       ////ZDefault
1577:
       APSET IDEFAULT=dd3
1580:
1581:
1582:
             Instructs the eystem to use dd as a password if wow into not
:550:
             enter a password for a password-protected file.
1584:
1565:
       ///CTime-Stamps
1596:
1567:
       Syntaxi
1588:
1589:
                SET CCREATE=OND
1590:
                SET [ACCESS=DN]
                SET SUFDATE=CN3
1571:
1592:
1577:
       - Explanation:
1594:
        The above SET commands allow you to keep a record of the time
1895:
15701
       and cate of file creation and update, or of the last access and
1577:
       update of your Files.
1578:
1579:
       // TOptions
1600:
1601:
        ICFEATE=ON1
                      turns on CREATE time stamps on the disk in the
1602:
                      default or specified drive. To record the
                      creation time of a file, the CFEATE option must be
1607:
1604:
                       turned on before the file is treated.
1605:
1606:
        IACCESS = CNC
                      turns on ACCESS time stamps on the dist in the
1507:
                      default or specified orive. ACCESS and CREATE
1608:
                      options are mutuall. Exclusive; only one can be in
1509:
                      effect at a time. If you turn or the ACCESS time
1617:
                      stamp on a dist that praviously had CREATE
1411:
                      time stamp, the DREATE time
                                                             stamp
1612:
                      automatically turned off.
1±13:
1614:
       ILYPDATE=CN3
                      turns on UFDATE time stamps on the disk in the
1515:
                      default or specified drive. UFDATE time stamps
1616:
                      racond the time the file was last modified.
1517:
      ///TENamples
1618:
1517
1621:
               ATRET FACCESS-ONS
```

```
1621:
                 ADSET COREATE=ON, LPDATE=ON)
1621:
162T:
        ///2Drives
1574:
1625:
         Syntax:
1526:
                 BET (did SFQS
1627:
                 BET (da) CRWD
1828:
1629:
1530:
1671:
         Example:
1:572:
1637:
         ADSET B: SECI
1634:
163E:
              Sets drive B to Feed-Only.
1535#
1607:
        7771SETDEF
1578:
1609:
         Syntax:
1540:
1641:
                 SETTER C d: C,d: C,d: 1,d:3300 CC TEMPERARY = d: 2 1
1542:
                                                   C ORDER = 'typ (,typ) ))
                 SETDER (DISPLA) ' NO DISPLAYI
1647:
1544:
1645:
                 SETDEF CPASE : NOPASES
1545:
1647:
        Explanation:
1548:
       SETDER allows the user to display or define up to four doller
1649:
1550:
        for the program search order, the drive for temporary files, and
        the file type seemen order. The SETDER definitions affect only the losding of programs and or execution of SUBMIT
16E1:
        only the loading of programs and or execution of SUBMIT (SUB) files. SETDEF turns on/off the system Display and Consols
1457:
1655.
        Fage modes. When on, the system displays the location and name
1454:
        of programs loaded or SUBmit files executed, and stops after
1655;
1656:
        claplaying one full consols acreen of information.
1657:
        : :/DE emblee
1658:
1659:
1660:
        ALBETTER
1651:
1650:
              Displays Survent EETDEF parameters.
1663:
1664:
       A SETDER ITEMPORARY=0:2
1645:
1606:
              Sets disk drive C as the drive to be used for temporar.
1667:
              files.
1668:
1667:
       ADBETDER D: , *
1470:
1671:
              Talls the system to search for a program on drive C. ther.
1571:
              if not found, search for it on the default drive.
1677:
1674:
       ARETUEF CORDER=(SUB, COM) ]
1675:
1476:
              Instructs the system to seeron for a SUB file to execute.
If no SUS file is found, search for a COM file.
1679:
1677
       - ADDETTER COTTERLAYS
```

```
Turns on the eveter disclay mode. Herceforth, the
1681:
                                                                    a 性性無代
             displays the name and location of programs loaded or submit
4 3 52 53 1
1627:
             files e polted.
24:
1/15
        A SETDER INC DISPLACE There off the eletion Display sode.
...5:
1127:
        ///13HOW
1138:
1589:
        Byrta.:
1470:
14911
             SHEW ID:SIDEFACE TLABEL TUBERS TDIR TORINGS
1472:
1697:
        Explanation:
1194:
1695:
        The EHOW command displays the following dist drive information:
1596:
1677:
           Access mode and the amount of free diet space
1493:
           Disk label
1699:
           Current Laser tumber and
17001
           Number of files for each user number on the disk
1701:
           Number of free directory entries for the diss
777
           Dr.ve thanacteristics
1777:
170-4:
        / CE amples
. 7.5:
17 le:
        H BHLW
1703:
             A SHOW ISPACES
. 7.9:
17:0:
             Instructs the system to display access mode and amount of
17711:
             space left on logged-in drives.
1711:
1711:
        AVSHEW B:
1714:
1715:
             Show access acce for drive B and amount of space left
                                                                          4.5
17164
             drive B.
1717;
1719:
        ALEHOW E: CLARELI
1719:
1720:
             Displays label information for drive E.
1721:
1722:
        ATSHOW CUSERS:
1723:
1724:
             Displays the current user number and all the users on drive
1725:
             A and the corresponding number of files assigned to them.
1726:
1727:
        AUSHOW C: IDIRG
1728:
1729:
             Displays the number of free directory entries on drive C.
1770:
1771:
        ALEMON IDEIVES
17721
1700:
             Displays the drive characteristics of drive A.
1774:
1775:
        J MISID
1-14:
1777:
        Eyntak:
1778:
1777:
             SID (pgm-filespec) (,sym-filespec)
1740:
```

```
1741:
        :ncitenation:
1742:
1747:
        The SID symbolic debugger allows you to monitor and test
       programs developed for the 8030 microprocessor. 210 supports
1744:
1745: real-time breakpoints, fully monitored execution, symbolic 1746: disassembly, assembly, and memory display and fill functions. 1747: SID can dynamically load BID Ltility programs to provide
       traceback and histogram facilities.
1743:
1747:
1750:
      ///20ammands
1761:
17521
               Command
                                     Meaning
1753:
1754:
           А⊈
                            (Assamble)
                                          Enter assambly language
1755:
                                           statements
175a:
                                           s is the start address
1757:
175£:
           G = (b 0, #00
                            (Call)
                                           Call to memory location from SID
1755
                                           E is the called address
1760:
                                           b is the value of the BC register
1751:
                                           pair d is the value of the DE
1752:
                                           register pair
1753:
           L(W)(a)(,f) (Display)
1764:
                                           Display memory in hex and ASCII
1765:
                                           W is a is-bit word format
174a:
                                           s is the start address
1767:
                                           f is the finish address
1768:
1769:
           Epgm-filespac (Load)
                                        Load program and symbol table
17770:
            [,sym-filespec]
                                           for execution
1771:
1772:
           Exeym-filespec (Load)
                                          Load a symbol table file
1773:
1774:
           F≡, f, d
                      (Fill)
                                           Fill memory with spretant value
1775:
                                           s is the start address
1776:
                                           f is the finish address
1777:
                                           d is an eight-bit data item
1778:
1779:
           G(p)(,a(,b))
                            (90)
                                           Begin Execution
1780:
                                           p is a start address
1731:
                                           a is a temporary breakpoint
1782:
1780:
                             (H≘√)
                                           Displays all symbols with
1784:
                                           addresses in Hex
1785:
           H.a
                                           Displays hew, decimal, and ASCII
1795:
                                           values of a where
1787:
                                           a is a sympolic expression
1788:
           **(主点)型
1789:
                                           Computes her sum and difference
1770:
                                           of a and b where
1791:
                                           a and b are symbolic expressions
1792:
1790:
           Icommand tail
                           (Input)
                                           Input CCF command line
774:
1795:
           L(E)(,4)
                            (List)
                                          List 8080 mnemonic instructions
1776:
                                           s is the start address
1797:
                                           f is the finish address
1798:
```

1800:

Me,h,d

(Move)

Move Memory Block

a is the start address

1801:			No. of the Artist Action of th
1902:	•		h is the high address of the tite
1900:		•	d is the destination start address
1804	Maga, edd	//" S	_
1875:	~ LD + g + D Z	(Fame)	Paga potrt aat, reset, and display
	ν.		p is a permanent presiptint address
151a:			G is initial value of pass counter
1807:			
1808:	Ffil≘spec(,a)	(baed)	Read Code Symbols
1 309:			d is an officet to mech adoress
1810:			
- 1811:	E IWI E	(Sat)	Set Memory Velues
_ 1812:			
18:11			s is address where value is sent W is 16 bit word
1814:			w an an err wend
1815:	Tini,eli	(Trada)	
1816:		ነ	Trace Program Execution
1816: 1817:			n is the number of program steps
1618:			c is the utility antry address.
- 1817:	ማ መደተን ተጠ ተጠ ተ		
1820:	T(W) in (, =)?	(Trace)	Trace Without Cell
1821:			Winstructs SID sot to trate
1822:			subroatines
			n is the number of program steps
1917:			c is the Ltilit, ertry address
1924:			,,
1825:	UISWO Shickett	(Untrace)	Monitor Election without Trace
1826:			n is the number of progress steps
1827:			c is the Ltility entry address
1978:			W instructs SID act to trace
_ 181°:			subroutines
:530:			
1871:	V	(Val.e)	Display the value of the dest
1972:			evailable location in memory
1877:			(NEXT), the next location efter
1834:			the largest file read in (MBZE).
1935:			the series of th
- 1904:			, the current value of the Program
1677:			counter (PC), end the address of
1218:			the and of available memory (END)
18771	Wfilespec, s.f	Dilari Gas	
1940:	W. C. Emple C. B. T.	(Whites)	Write the contents of a contiguous
1841:			block of memory to filespec.
1842:		-	f is finish address
1845:	X {+} {r}	/ 5 "	
1544:	A UT I EFT I	(Examine)	Examine/alter CFU state.
1845:			f is fleg tit D, I, M, E or I.
			r is register A.E.D.H.E or A.
1846: 1847:	ے سمع پیشر ہے ہ		
	'''2E.amples		
1948:	4		
1847:	A^SID		
1250:			
1851:	CP/M I loads BID from drive A into memory. SID displate the		
1252:	# prompt when it is ready to accept commands.		
1850:			g: —
1854:	ADB:SID SAMFLE, HEX		
1955:			
1856:	CP/M I loads SID and the program file SAMPLE.HEX into mamor,		
185°s	from drive B.		The the second of the second o
1858:			

1860:

/ Cutilities

```
SID Lilinies. MIST.UTL and TPACE.UTL and special programs
1861:
       commete with SID to provide additional debugging facilities.
1841:
       mechanisms for system initialization, data collection.
data display are described in the DF/M GID User's Suide.
1860:
13541
18c5:
        The HIST utility prestés a histogram (ben graph)
1866:
                                                               - 되하고씨1 " 그 - - - - - -
      relative frequency of elecution of code within selected program the WIST utility allows
1848:
1865:
        you to monitor those sections of code that execute most
1870:
        frequently.
1571:
1871:
1871:
1874:
        The TRACE utility obtains a backtrace of the instructions that
        led to a particular breakpoint address in a program under test.
        You can collect the addresses of up to 254 instructions
187E:
       between pass points in U or T modes.
1674:
1877:
        77/1SUBMIT
1878:
1879:
        Eyntaxa
1330:
18814
             SUBMIT (Allespec: (angument) ... [angument]
1982:
1887:
       - Explanation:
1384:
1885: - The BUBMIT command lets you execute a group (batch)
1956:
       commands from a SUBmit file (a file with filetype of SUB).
1887:
1888:
       - / '/29ubfile
1889:
1890:
       The SUB file can contain the following types of lines:
1891:
1891:
            Any valid CPVM D command
1893:
            Any valid CP/M 3 command with SUBMIT parameters ($0-$9)
1894:
            Any data input line
1975:
            Any program input line with parameters ($0 to $9)
1896:
1897:
        The command line cannot exceed 135 characters.
1878:
1899:
       The following lines illustrate the variety of lines which may
1POC:
       'be entered in a SUB file:
1901:
1902:
               DIR
1000
                DIR *.BAK
1904:
                MAC $1 $$$44
1705:
                FIP LST: H$1, PRNET$2 $5 $51
1906:
                DIF * ASM
1907:
                FIP
1908:
                《音·音》。ASM
1909:
                KCON: =DUMP.ASM
1910:
1711:
                DIR B:
1912:
1910:
       // OExecute
1714:
1915:
       Syntani
1316:
1917:
                EUBMIT
1918:
                SUBMIT filespec
                SUBMIT filespec argument ... argument
191F:
```

```
1921:
      E×anp1==;
1922:
1921:
                A) SUBMIT
1724:
                ANSUBMIT BUBA
1925:
                ADSUBMIT AA ZZ SZ
                ASSUBMIT BESTAFT DIR E:
1726:
1927:
1929:
        / /IFROFILE. SUB
1929:
1930:
        Everytime you power up or reset your computer, CP.'M T looks for a
4 7 4 1
       special SUBmit file named PPOFILE. SUB to execute. If it does not
1972:
       exist, CP/M T requires rormal operation. If the PFDFILE.SUB file
       evists, the system election the commands in the file. This file
1977:
        is convenient to use if you regularly a soute a set of commence
1904:
1975
       before you do your regular session on the computer.
1975.
1977:
        77.11TYFE
1938:
1939:
       Syntaxi
1940:
1941:
                TYPE Ifilespec (E FAGE : NOFAGE 313
1942:
1947:
       - Explanation:
1744:
1945:
        The TYPE command displays the contacts of
                                                             ತರ
                                                                    ASCIT
1946:
       character file on your screen.
1947:
1948:
                  Causes the console listing to be displayed in paged
        [PAGE]
1949:
                  mode; i.e., stop automatically after listing n lines
1950:
                  of taxt, where a normally defaults to 24 lines per
1年21:
                  page.
1952:
        [NOPAGE] Turns off Console Page Mode and continuously displays a
1957:
1954:
                  typed file on the screen.
1955:
1956:
       7//TExamples
1957:
       ALTUPE MYREDG, PLI
1958:
1759:
1960a
             Displays the contents of the file MYFROG.FLI on your screen.
1941:
        9: TYPE B: THISFILE (FAGE)
1941:
1753:
1954:
             Displays the contents of the file THISFILE from drive B on
1765:
             your screen twenty four lines at a time.
1946:
1957:
       ZZZZESER
:568:
1969:
       Eyntails
1970:
1971:
               USER (number)
1972:
1970:
       Explanation:
1974:
       The LSER command sets the current user number.
1975:
                                                               The
       directory can be divided into distinct groups according to a
1376:
       "User Number." User numbers range from 0 through 15.
1977:
1978:
1975:
       ///DExamples
:930:
```

```
1981: 12 Juses
1982: Enter Jeer#:5
 1794:
 1535:
               The current user number is now 5 on drive A.
 1736:
 1997:
         ALUSER T
 1998:
          7A>
 1989:
 1990:
               This commenc changes the current Lear Number to T.
 1991:
 1992:
         V CLXFEE
 1993:
 1994:
         Syntax:
 1595:
 1995:
                  XREF (d:) filename ($P)
1997:
 19991
         Explanation:
 1999:
         XREF provides a cross-reference summary of variable usage in a program. XREF requires the PRN and SYM files produced
 2000:
 7771
         by MAC or SMAC for input to the progress. The SYM and SEM files
 2002:
mist have the same filename as the filename in the XRET command
         tail. XFSF outputs a file of type .XRF.
2004:
 2008:
200da
         Examples:
2007:
2008:
         ADXREF 6: MYFFCS
20091
2010:
        Alxrer binypros #P
2011:
```